PF-2894   **AMENDMENT WITH RCE**   01450013aa
Amendment dated 09/04/2008   Reply to office action mailed 05/12/2008

REMARKS

Claims 1-3, 6-18, 21-29, 31, 34-38, 40-41, 43, 45-47, 49-50, 52, and 54-55 are currently pending in the application. By this amendment, claims 1, 16, 29, 38 and 47 are amended for the Examiner's consideration. The foregoing separate sheets marked as "Listing of Claims" show all the claims in the application, with an indication of the current status of each.

The Examiner's acceptance of the new title, withdrawal of the previous §101 rejection as to claim 29, and withdrawal of the previous §102 ground of rejection based upon the Deluca reference are acknowledged with appreciation.

The Examiner rejects claims 16-18, 21-28, 38, 40, 41, 43, 45-47, 49, 50, 52, 54 and 55 under 35 U.S.C. §112, second paragraph, as being indefinite because of an apparent ambiguity in the description of the table in claim 16, lines 21-23, as not including the identified image or sound file itself and only a point. The ambiguity arises from the amendment submitted on 02/15/2006, where the term "display method" was replaced in claim 1 with "identifier for an image or sound file" and in claim 16 with "identified image or sound file." The reasoning behind this change was to distinguish the Furusawa reference, which did not provide an indication of the image or sound to be displayed by the display mechanism. It will be observed that the structure of the claims provided for a more generic description in the independent claim, with more particular implementations as described in Figs. 5 and 8, respectively, in claims 4 and 5 (depending from claim 1) and claims 19 and 20 (depending from claim 16). More recent amendments have collapsed these dependent claims into their respective independent claims, thereby retaining the ambiguity generated by the amendment submitted on 02/15/2006. The ambiguity was

overlooked at the time because the dependent claims 19 and 20 were separate claims and had not yet been incorporated into the independent claim 16. Note that claim 1 did not have this problem because the term "identifier" had been used.

As the Examiner has previously observed, the term "identifier" is broad enough to apply to both the pointer to an image or sound file (i.e. "designating data") and to the image or sound file themselves (i.e. "necessary data"). However, it is clearer to restore the term "display method" and use the phrase "display method identifying an image or sound file." Also, this provides a more direct antecedent basis for the subsequent phrase "identified image or sound file." This formulation could equally well have been used in the 02/15/2006 amendment to distinguish Furusawa. Consequently, in view of the history of the claim amendments and the now obvious inconsistency inadvertently introduced into claim 16 by the amendment submitted on 02/15/2006, the equally obvious solution is to amend both claims 1 and 16 to use the phrase "display method identifying an image or sound file," with corresponding amendments to claims 38 and 47 for the same reasons. It appears that independent claim 29 is adequate as it stands, needing only clearer and more consistent use of antecedent references.

The assistance of the Examiner in correcting the foregoing oversights introduced in the 02/15/2006 amendment is acknowledged with appreciation. It is believed that the §112, second paragraph, ground of rejection is now overcome.

The Examiner has rejected claim 47 and its dependent claims under 35 U.S.C. §101 on the ground that the claim is directed to non-statutory subject matter. Current PTO policy in this area is based upon *In re Comiskey* (CAFC, decided 9/20/2007). *Comiskey* discussed at great length the scope of §101, and the reasons why the use of algorithms and mathematical formulas cannot be preempted by patent. "Software per

se" falls into this category. However, claim 47 merely expresses the invention described in the other claims in terms of a software/computer implementation. This is quite different from the "software per se" argument. Indeed, it is more closely related to another point made by *Comiskey*: the "routine addition of modern electronics to <u>an otherwise unpatentable invention</u> typically creates a prima facie case of obviousness" (*Comiskey*, slip opinion, p. 24)(emphasis supplied). The reference to "otherwise unpatentable invention" refers in *Comiskey* to inventions which have §101 problems, where the applicant attempts to cure the §101 problem by "routine addition of modern electronics."

Since the present invention as described in claims 1, 16, 29 and 38 is clearly <u>not subject to a §101 rejection</u>, the mere addition of software implementation means to otherwise patentable subject matter cannot <u>create</u> a §101 issue. See, for example, *Diamond v. Diehr*, 450 U.S. 175 (1981), where the applicant's use of a computer implemented formula within a process involving otherwise patentable subject matter (i.e. a process for curing synthetic rubber) did not take the subject matter outside of §101. Compare *Gottschalk v. Benson*, 409 U.S. 63 (1972), where the rejected claim was for a method of converting binary-coded decimal numerals into pure binary numerals and was "not limited to any particular art or technology, to any particular apparatus or machinery, or to any particular end use." Here, claim 47 carries over from the specification claim elements used in the other independent claims. For example, "first computer code for detecting" implements the identical "means for detecting" described in claim 29. Likewise, "second computer code for displaying" tracks "a display unit for displaying" as described in claim 29. Similarly, "third computer code for obtaining necessary data" and "fourth computer code for obtaining

said necessary data" implement the same "means for obtaining necessary data" and

"means for obtaining said necessary data" as described in claim 29.

However, in view of recent PTO policy regarding claiming strategies adequate

to pass review of §101 issues, the preamble of claim 47 has been amended to add the

following underlined language consistent with these acceptable claiming strategies, to

wit:

> A computer implemented system for displaying information, said
> computer system <u>having software modules stored thereon and having a</u>
> <u>processor operable to execute the software modules,</u> the software modules
> comprising:

It is therefore submitted that a §101 rejection of claim 47 cannot be sustained

and, in any event, is overcome by the amendment.

The Examiner has rejected claims 1-3, 6, 7, 10-18, 21, 22, 25-29, 31, 34, 35,

38, 40, 41, 43, 47, 49, 50, and 52 under 35 U.S.C. §103(a) as being unpatentable over

U.S. Patent No. 5,784,001 to Deluca et al. ("Deluca") in view of U.S. Patent No.

5,684,999 to Okamoto. Claims 8, 9, 23, 24, 36, 37, 45, 46, 54, and 55 are rejected

under 35 U.S.C. §103(a) as being unpatentable over Deluca in view of Okamoto and

further in view of U.S. Patent No. 6,820,237 to Abu-Hakima et al. ("Abu-Hakima").

Abu-Hakima discloses and email and attachment (missing from Deluca and

Okamoto) in the context of a system for context based highlighting of key words in a

document.

The Examiner indicates that the §102(b) rejection was withdrawn because

Deluca fails to show the dual aspect of the table (i.e. both file and pointer). In the

new §103 rejection he uses the Okamoto reference to show an "image object retrieval

dictionary 213" as distinct from an "image object database 214 for storing image

objects." In particular – as emphasized in his Advisory Action mailed on July 25,

2008 – the Examiner cites col. 8, lines 19-47, and corresponding Figs. 2 and 3 in the

Okamoto reference. It is the intention of the applicant in this revised section of the

remarks to specifically address the argument made by the Examiner in his Office

Action mailed May 12, 2008. In order to be clear, the Examiner's argument will be

quoted in full, from pages 14 and 15 of the Office Action:

> "Deluca does not show that said table <u>does not</u> include said necessary
> data [image data] in case of obtaining said necessary data for said display of
> said image or sound file (second means limitation).
> "Okamoto shows a case when said table [an image object retrieval
> dictionary (213)] (Figs. 2 and 3) does not include said necessary data [image
> data] (col. 8, lines 19-47), said table instead including designating data which
> designates said necessary data [each image object retrieval data includes a
> pointer (303) to image objects that are stored in the image object database
> (214)] (col. 8, lines 19-47).
> "It would have been obvious to one of ordinary skill in the art at the
> time of the invention to modify the system of Deluca by having a table that
> does not include necessary data [image or sound file data], said table instead
> including designating data which designates said necessary data [having a
> pointer to the image or sound file data storage location] in order to separate
> storage of a table that establishes correlation between predetermined key
> words or key marks and associated image and storage of actual image file
> data, as an alternative to storing image data as a part of the table, wherein both
> techniques were well known in the art at the time of the invention as
> evidenced by applied references."

As presented in the Office Action mailed May 12, 2008, the Examiner's

argument is simply that a) while Deluca does not show a table using pointers (second

means element), b) Okamoto shows a table using pointers.

This is a straightforward argument. But it misses the point of the invention.

As the Examiner observes, "both techniques were well known in the art at the time of

the invention." The applicant's point is that <u>where there is email communications</u>

<u>between or among terminal devices having a common key word table</u>, **it is**

unnecessary to attach the key word table to the email, thus reducing

communication traffic (page 32, lines 19-22). Thus the invention concisely

addressed the particular bandwidth concerns that are emphasized in the specification

(page 3, lines 1-16; page 4, lines 2-6; page 5, lines 11-15; page 5, lines 16-18; page 7,

lines 1-5; page 7, lines 6-8; page 8, lines 15-19; page 8, lines 20-22; page 10, lines 7-

10; page 10, lines 11-14) and that have been emphasized repeatedly in the numerous

responses in this extended prosecution.

The claims have been further amended to clarify this point.

However, the Okamoto retrieval dictionary 213 is a complex structure that

associates a keyword (which is different from the complex "retrieval key", as will be

explained below) with a plurality of pointers to related image object retrieval data and

a plurality of pointers to image objects (Fig. 3 and col. 8, lines 22-47). The Okamoto

table could not be used in the manner or for the purpose of the table in the present

invention to associate a particular retrieval key with a particular image (or sound)

corresponding to the retrieval key. This Okamoto structure is part of an invention

directed toward a system for easy retrieval of a desired image from a database having

a large number of images. The Examiner argues that Okamoto illustrates that the

pointer technique was well known in the art, and that it would have been obvious to

modify Deluca to add this technique because "both techniques were well known."

However, the pointer technique disclosed by Okamoto – even if added to

Deluca – would not be in accordance with the teachings of the present invention. It

will be observed that Okamoto operates by a syntactical analysis of both images and a

user natural language query. The results of the syntactical analysis of each of a large

number of images, each image being parsed by the analysis into a plurality of objects

and regions, which are then associated with attribute data, are then stored as the data

in the retrieval dictionary 213. Similarly, a natural language "query" of the user is

parsed into a linguistic structure that is run against the retrieval dictionary to locate matching images (Figs. 2, 7 and 8; col. 6, line 62, to col. 22, line 67; especially col. 19, lines 11-14). Each part of the parsed linguistic structure is used to retrieve matching images, and then these pair groups are put through a selection routine (as shown in Fig. 9). At the end of this complex algorithm one matching image may be found that corresponds to the combination of elements in the parsed linguistic structure, or a number of images can be found containing the constituent image objects, which can then be edited to obtain the desired image (col. 22, lines 34-67).

In the example presented in Okamoto, a user of the system recalls a time when "Tom is running with John in the first group at XX Marathon" (col. 9, line 15-16), and seeks to find a picture showing this situation. The parser breaks the sentence into four elements (Tom, John, XX Marathon, first group) as shown in Fig. 6, and a complex logic is applied (involving "foreground" and "background" for example, col. 14, lines 12-23). The syntax of these elements is then referred to as an "image retrieval key" (col. 14, lines 24-46), which is then used to retrieve one or more objects (Fig. 8; col. 15, lines 38-40), which are then further screened by similarly parsing the natural language of the image attribute data in the retrieval dictionary 213 to generate an "image retrieval key" (col. 16, lines 14-43) with the same structure as the "input image retrieval key" generated from the user query (col. 16, lines 45-46). The similarity between the "input image retrieval key" and each of the "image retrieval keys" of the retrieved images is calculated using an algorithm (col. 16, line 44, to col. 17, line 5). The end result may be a plurality of images in response to the "input image retrieval key" (col. 21, lines 7-18).

As stated in Okamoto itself, the above described technique stands in contrast to conventional retrieval methods using keywords (col. 22, lines 34-37), and does not

suggest the pointer technique of the present invention. It is submitted that one skilled in the art would not have any reason to combine the Okamoto technique with Deluca, which is any event would not result in the claimed invention. In summary, Okamoto provides analysis of an image to extract a structure, which constitutes an "image retrieval key," which is then compared using an algorithm to a similar complex structure, the "input image retrieval key," in an effort to determine whether the image database 214 contains the sought after image, or contains images whose objects can be edited in combination to generate the desired image. While it is conceivable that the teachings of Okamoto could be combined with Deluca to improve the variety of images usable in Deluca's system for non language specific communication, it is not at all evident that Okamoto's teaching has any relevance whatever to the present invention, much less that its combination with Deluca would overcome the deficiency of Deluca which has been admitted by the Examiner, namely, inclusion of <u>both</u> means limitations.

From the above discussion of Okamoto it should be clear that the teachings of Okamoto are far removed from those of the present invention. Okamoto has as its purpose the difficult task of retrieving an image from a database of images, whereas the present invention uses a text retrieval key in an email to avoid bandwidth limitations in a communication, the image (or sound) being supplied at the receiving end via a table linking the retrieval key to the image (or sound). The highly structured "retrieval key" in Okamoto is not a retrieval key at all, in the sense used by the present invention, but rather a search algorithm. <u>In its purpose, structure and effect Okamoto is completely different from the present invention</u>.

While it must be admitted that the pointer technique used in the present invention is well known in the art, the Examiner offers no reason for using the two

techniques (pointer and file itself) <u>together</u> in the manner described by the claims. The Examiner notes that the pointer technique is "an alternative to storing image data as a part of the table" but fails to articulate a reason for using <u>both</u> techniques (as opposed to using an <u>alternative</u> technique). In the present invention the use of the two techniques in a complementary fashion derives from the purpose of reducing communication bandwidth, a motivation which is not present in Deluca or Okamoto. Consequently, there is no basis – apart from impermissible hindsight – for assuming that one skilled in the art would be motivated by Deluca and Okamoto to make the combination in the manner described in the claims.

Deluca is a system for invoking a pictorial system of messages that is not language specific (col. 1, lines 36-38; col. 5, lines 2-4; col. 7, lines 39-40; col. 7, lines 46, 49-51, 64-66), in order to provide selective call messages effective without reference to a specific language. Thus, a sender is provided with a table of codes and language independent images associated with the codes. The sender selects the appropriate language independent images and then transmits the corresponding codes. At the receiver end, the "universally understood" (col. 2, line 62) images corresponding to the transmitted codes are displayed.

While Deluca shows a table linking codes with images, Deluca fails to address the bandwidth issues motivating the invention and, consequently, the table shown in Deluca does not disclose or suggest the dual aspects of the table claimed in the present invention. The pointer technique was well known in the art since long before Deluca, and therefore Deluca's failure to use it strongly suggests that one skilled in the art to which Deluca pertains would not have done so. This conclusion makes particular sense since Deluca fails to address the bandwdth issues that motivate the present invention.
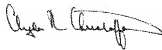
It is therefore submitted that Deluca, and as further informed by Okamoto, considered separately and in combination, are overcome as a reference.

In view of the foregoing, it is requested that the application be reconsidered, that claims 1-3, 6-18, 21-29, 31, 34-38, 40-41, 43, 45-47, 49-50, 52 and 54-55 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400 (fax: 703-787-7557; email: clyde@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to Attorney's Deposit Account No. 50-2041.

Respectfully submitted,

Clyde R Christofferson
Reg. No. 34,138

Whitham, Curtis, Christofferson & Cook, P.C.   **Customer No. 30743**
11491 Sunset Hills Road, Suite 340
Reston, VA 20190
703-787-9400
703-787-7557 (fax)